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ORD PROGRAMS IN SUPPORT OF DDA/ODP: FY-83

File 44
Plan 100773

<u>Plan as Presented June/July 1982</u>		<u>Actual Project</u>	<u>FY83 Funding</u>	<u>Comments</u>
System Design Methodologies	\$100K	System Design Methodologies	\$100K	current effort 124K; \$100 ORD , \$24 ODP
Computer Security/RECON	\$200K	Computer Security/RECON	\$200+	Addl 230K unfunded reqmt for delayed/modified testing.
Advanced Text Retrieval	150	Advanced Text Retrieval	148	
Data Base Management	300	Intelligent Data Bases	250	S/F FY-83-84, \$250/48
<u>RELATED RESEARCH</u>				
Computer Security/Audit Trail(OS)	250	Audit Trail - Algorithmic Tools Development	250	
Document Control	50	Document Traceability	66	
Geographic/Cartographic Data Bases (DDI)	300	Geographic Information Systems	200	100K deferred
Data Communications	150	Data Communications	150	
		Text Processing Techniques (not briefed in 82)	275	

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STATUS REPORT

PROJECT: System Design Methodologies

OBJECTIVE: To provide an easy-to-use, general queuing network model for analysis of complex systems such as the ODP computer system.

INITIATION DATE: June 5, 1980

STATUS: Work has started on moving the model to the University of Maryland's IBM computer system. Also improvements are being made to the model of the VM system which is being created for ODP as a demonstration of capabilities.

CUSTOMER CONTACT:

ED/ODP

COST: 83

PLANNED: \$100K

ACTUAL: \$124K (\$100K, ORD; \$24K, ODP)

SCHEDULE: FY84: Scheduled completion January 31, 1984.

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STATUS REPORT

PROJECT: Text Processing Techniques

OBJECTIVE: Develop techniques which can be used to efficiently filter text data bases to identify and retrieve potentially relevant items.

INITIATION DATE: Fourth Quarter FY81

STATUS:

1. Rule-based retrieval, applying artificial intelligence techniques to text processing and retrieval, has been successfully demonstrated in concept. This methodology will be applied to an intelligence problem, with enhancements planned for the analyst-system interface. (Contract in negotiation for 1 July 1983 start.)
2. Statistical techniques for content analysis of text have been successfully demonstrated. Current work will investigate more efficient techniques for indexing, retrieving, and analyzing text contents. (Contract under negotiation for 1 July 1983 start.)

CUSTOMER CONTACT: , FBIS
OSO
ODP

COST: 83

PLANNED: \$150K

ACTUAL: (In Negotiation)

SCHEDULE:

FY84: 1. Enhanced analyst interface to rule-based retrieval system will be delivered.

2. Efficient content analysis techniques will be demonstrated.

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STATUS REPORT

PROJECT: Data Communications - Future Technology Implications

OBJECTIVE: The identification of possible new problem areas in data communications networks and distributed systems brought about by the rapid technological advances in these areas. The impact of circuit component technology (e.g., VLSI) and data transmission technology (e.g., optical carrier modulation, electro-optics) are examples of the technology that will be examined.

INITIATION DATE: Fourth Quarter FY83

STATUS: A draft Statement of Work has been sent to prospective customers for comment. Present plans call for a competitive RFP to be issued. The best 2 or 3 respondents would be awarded contracts to perform this study. Since this study contract will require some forecasting and technical opinion, multiple contractors will provide the Agency with a broader perspective.

CUSTOMER CONTACT:

[redacted] OS/ISSG
[redacted] /Commo
[redacted] IHC/IC Staff
[redacted] , ODP/ED
[redacted] DIA/Deputy Chief/SAFE
Project

COST: 83

PLANNED: \$150K

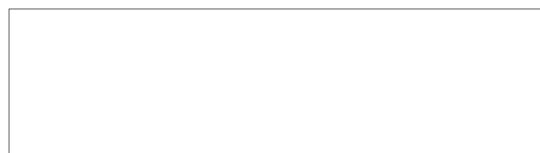
ACTUAL: TBD

SCHEDULE: Initial estimates indicate a 10- to 12-month project duration.

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STATUS REPORT

PROJECT: Geographic Information System

OBJECTIVE: To improve analyst and cartographer productivity in the use of digital maps by developing a knowledge-based adjunct to the existing World Data Bank, TACK, and ICADDS systems.

INITIATION DATE: 1 July 1983 (planned)

STATUS: Eight (8) bids received on competitive RFP. Evaluation of proposals in process.

CUSTOMER CONTACT:



CPAS/CDG
ODP/SDD

COST: 83

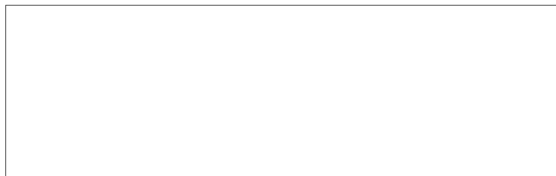
PLANNED: \$200K

ACTUAL: In Negotiation

SCHEDULE: From contract initiation: Analyze Agency requirements; Survey state of the art in Geographic Information Systems; Develop conceptual design; Build prototype system.

FY84: Develop detailed design; Implement system to be compatible with Agency's hardware/software/data base environment.

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STATUS REPORT

PROJECT: Document Traceability

OBJECTIVE: To provide the ability to trace ownership of a document even if it has been copied.

INITIATION DATE: September 8, 1982

STATUS: The Phase I report on generating schemes was submitted. Several schemes are being used to generate exemplars in order to test them for ease of use and resistance to countermeasures. The test plan has been generated and testing has begun. If the testing is successful, an implementation plan will be prepared.

CUSTOMER CONTACT: SECOM

COST: 82 83

PLANNED: \$150K \$ 66K

ACTUAL: \$150K TBD

SCHEDULE: FY83: Final report on scheme evaluation due July 31, 1983.
FY84: Implementation plan will be delivered (Optional).

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STATUS REPORT

PROJECT: Audit Trail - Algorithmic Tools Development

OBJECTIVE: To be able to automatically examine Audit Trail records and alert Security Officers to possible misuse of the computer system.

INITIATION DATE: FY83

STATUS: The two respondents to the RFP are preparing their best and final offers.

CUSTOMER CONTACT:  OS/ISSG

COST: 83

PLANNED: \$250K

ACTUAL: (In Negotiation)

SCHEDULE: FY84: Completion in one year from start of contract.

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PROJECT: Intelligent Data Bases

OBJECTIVE: To enhance analysts' access to large data bases by producing a deductive question-answering capability to work as an adjunct to existing data base management systems.

INITIATION DATE: 1 June 1982

STATUS: After surveying potential Agency applications, the Land Armaments and Manpower Model in SOVA was selected. The contractor's (SDC) software, the Deductively Augmented Data Manager (DADM), was transported to Xerox 1100 Lisp machine and installed at the Agency on the Golden Tiger system. Follow-on contract has been issued to develop LAMM application on Golden Tiger with link to VM.

CUSTOMER CONTACT: SOVA/EA/D

COST: 82 83

PLANNED: \$200K \$250K

ACTUAL: \$191K \$298K (split funded; \$250K FY83 funds,
\$ 48K FY84 funds)

SCHEDULE: Beginning 15 May 83: Analyze in greater depth the LAMM model and select an appropriate subapplication; Construct a LAMM knowledge base by interviewing LAMM users and developers; Develop interfaces between LAMM, DADM, and end-user; and Develop a prototype application on Golden Tiger which uses live data managed by LAMM on VM.

FY84: Evaluate the usefulness of system to end-users; Improve user interface and knowledge acquisition process; Identify additional applications (with LAMM or otherwise).

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STATUS REPORT

PROJECT: Advanced Text Retrieval

OBJECTIVE: To provide a general system architecture for text retrieval which is extensible, transportable, implementable over a range of hardware sizes, and which permits the measurement of performance of various alternative approaches to text retrieval.

INITIATION DATE: 1 June 1982

STATUS: Analyzed Agency requirements and capabilities for text retrieval. Surveyed state of the art in commercial and research text retrieval systems. Developed a text retrieval system simulator and measured several alternative approaches. Developed Conceptual Design of new text retrieval system architecture (distributed, with indexing and streaming, and using a multi-window user interface.)

CUSTOMER CONTACT:



ODP/SPD
FBIS
OSO

COST: 82 83

PLANNED: \$150K \$150K

ACTUAL: \$147 TBD

SCHEDULE: From 15 May 83: Finalize Conceptual Design; Initiate follow-on contract to develop Detailed Design, build early prototype of system in Lisp on Symbolics 3600.

FY84: Implement second prototype in C language on IBM PC; Experiment with various text retrieval algorithms; Solicit analysts' evaluation of user interface.

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STATUS REPORT

PROJECT: Computer Security - RECON

OBJECTIVE: Explore and develop methodology to provide a provably secure mechanism to allow access to Agency systems by other intelligence community members that enforces compartmentation requirements.

INITIATION DATE: Second Quarter FY81

STATUS: RECON Guard Device System prototype development will be completed during June 1983. The test/evaluation phase for the RECON Guard System should begin in July 1983 after delivery of the completed Guard System to the Government. Completion of the evaluation phase (the final project phase) would then be projected for first quarter FY84. Subsequent to successful completion of the evaluation phase, FY84 effort would focus on production system definition and desired enhancements (if any) identified during the prototype evaluation.

CUSTOMER CONTACT: ODP, IC Staff, OCR

COST: 83

PLANNED: \$200K

ACTUAL: \$200K+

SCHEDULE: In flux. The lack of the COINS/HAS equipment means that we now have the unanticipated cost of providing hardware and additional software to perform the evaluation phase. Until we can get additional funding, we cannot say what the schedule will be.

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